WHAT IS CLAIMED IS:

1. A semiconductor integrated circuit comprising:

an oscillation circuit which includes inductance element and capacitance element and oscillates in the frequency depending on values of LC; and

a voltage comparing circuit for comparing a control voltage of said oscillation circuit with a reference voltage,

wherein said oscillation circuit is provided with a plurality of capacitance elements connected in parallel and a selection switch means, and can change LC values by selectively connecting any one of said plural capacitance elements with said selection switch means, and said selection switch means is controlled depending on the comparison result of said voltage comparing circuit to adjust the oscillation frequency of said oscillation circuit.

2. The semiconductor integrated circuit according to claim 1, wherein said plural capacitance elements respectively have the weights of 2^m (m: positive integer).

3. The semiconductor integrated circuit according to claim 1, wherein said plural capacitance elements are formed to have identical capacitance value with each other, these capacitance elements are divided to sets each of which is formed of 2^m elements, and each set is provided with a selection switch means.

4. A semiconductor integrated circuit comprising:

a PLL circuit including:

an oscillation circuit having inductance element and capacitance element to oscillate in the frequency depending on values of LC;

a frequency comparing circuit for comparing an oscillation output of said oscillation circuit with a frequency of a reference frequency signal;

a loop filter for generating a voltage corresponding to a frequency difference between the oscillation output of said oscillation circuit and the reference frequency signal by an output of said frequency comparing circuit, and then supplying this voltage to said oscillation circuit as an oscillation control voltage; and

a voltage comparing circuit for comparing the control voltage outputted from said loop filter with the reference voltage,

wherein said oscillation circuit is provided with a plurality of capacitance elements connected in parallel and a selection switch means to change the values of LC when any one of said plural capacitance elements is selectively connected by said selection switch means and said selection switch means is controlled depending on the comparison result of said voltage comparing circuit to adjust the oscillation frequency of said oscillation circuit.

5. The semiconductor integrated circuit according to claim 4, wherein said plural capacitance elements respectively have the weight of 2^m (m: positive integer).

6. The semiconductor integrated circuit according to claim 4, wherein said plural capacitance elements are formed with each other to have identical capacitance value, these capacitance elements are divided to sets each of which is formed of 2^m elements, and each set is provided with a selection switch means.

7. The semiconductor integrated circuit according to claim 4, further including a register for sequentially storing the comparison result of said voltage comparing circuit, and the signal of each bit of said register is supplied as a control signal to said selection switch means.

8. The semiconductor integrated circuit according to claim 7, wherein a transmission control means is provided between said voltage comparing circuit and said register to transfer or cut off an output of said voltage comparing circuit, and said transmission control means is set to become conductive when the power source voltage rises, controls said register to sequentially store the comparison result of said voltage comparing circuit and is usually in the cut-off condition during a normal oscillating operation.

9. A semiconductor integrated circuit for communication comprising:

a PLL circuit including:

an oscillation circuit having inductance element and capacitance element to oscillate in the frequency depending on values of LC;

a frequency comparing circuit for comparing an oscillation output of said oscillation circuit with a frequency of a reference frequency signal;

a loop filter for generating a voltage corresponding to a frequency difference between the oscillation output of said oscillation circuit and the reference frequency signal by an output of said frequency comparing circuit, and then supplying this voltage to said oscillation circuit as an oscillation control signal; and

a voltage comparing circuit for comparing the control voltage outputted from said loop filter with the reference voltage;

a power amplifying circuit for amplifying and outputting an output signal of said PLL circuit;

a modulation circuit for modulating an output signal of said PLL circuit by controlling a gain of said power amplifying circuit depending on the transmitting data; and

a demodulating circuit for demodulating the receiving signal.

10. The semiconductor integrated circuit for communication according to claim 9, comprising:

a detecting circuit for detecting an output signal of said power amplifying circuit; and

a mixer for outputting a frequency-converted signal by combining an output of said detecting circuit and the receiving signal.